

PEOPLE'S SENSE OF BELONGING AND ITS ROLES IN ENHANCING THE HABITABILITY OF PUBLIC EVACUATION SHELTERS

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ABSTRACT

Since the eruption of Mount Merapi in 2010, the Government of Sleman Regency has determined three zones of disaster prone area in order to enhance the mitigation attempts. Within these zones, there are public evacuation places, either temporary shelters or permanent camps. Cangkringan District as one of these disaster prone zones also has some public buildings that are functioned as sheltering for the evacuees. Not all types of public buildings are appropriate and habitable for accommodating them. This research aims at finding out how habitable the buildings are and the roles of people's sense of belonging in increasing the habitability of the buildings. The investigation methods consisting of interviews and questionnaires were conducted to collect the data. The review of the documents and the mapping observation were also carried out to support the data for the crosscheck analysis. The sampling techniques for respondents used the purposive snowball sampling, whereas the sample of shelters employed some kinds of public buildings that were functioned as the evacuation camps such as schools and neighborhood office halls. The initial findings showed that the habitability of public evacuation shelters was dependent on the people's sense of belonging of those places and the way people got involved in the daily activities on those places. Thus, enhancing the habitability of places and the adaptability of people onto various alternative place designs will psychologically support their continuation of life in the evacuation camps.

Keywords: Disaster prone areas; Evacuation shelters; Sense of belonging

1. INTRODUCTION

Indonesia is located inside the Pacific Ring of Fire. Furthermore, it is also verified as a prone area for the mountain eruptions. One of the most active mountains is mount Merapi. Mount Merapi is located in Java Island, at the border of Sleman Regency in Yogyakarta Special Province, and the regencies of Magelang, Boyolali, and Klaten in Central Java. The eruption of mount Merapi regularly takes place in the cyclical span of 2 to 10 years. The big eruption of mount Merapi in the year of 2010 affected the agriculture activities as well as the physical infrastructures in the surrounding areas. It also changed the morphological top surface of the mountain. The transformation of the surface leads to some different predictions of the disaster prone zones to which the direction of volcanic emission will flow.

Since the 2010 eruption, the Government of Sleman Regency has determined 3 (three) zones of disaster prone areas in order to build up the specific mitigation services (Peraturan Bupati Sleman, 2011), i.e: (a) disaster prone area I is the potential area affected by the lava flow; (b) disaster prone area II is the potential area affected by the

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volcanic mass such as magma and molten rock; and (c) disaster prone area III is the closest area to the disaster resources to which the volcanic emissions stream.

Cangkringan district is a zone which mostly included in the disaster prone area III. It is situated approximately 400 meter above the sea level, with tropical climate. It consists of 5 (five) villages i.e Wukirsari, Argomulyo, Glagahardjo, Kepuhardjo, and Umbulharjo. Within this prone area, there are public buildings which are used to accommodate the evacuees when the eruption disaster happens. Despite the fact, the success of public evacuation buildings is influenced by several aspects, including the habitability of the places itself. This purpose of this research is to observe the people's sense of belonging and its roles in the framework of disaster mitigation attempts, especially in increasing the habitability of the physical and non-physical qualities of the evacuation buildings where the evacuees are sheltered. The investigation took place and focused in Umbulharjo Village area (see figure 1a and 1b), in which many public evacuation buildings are located.

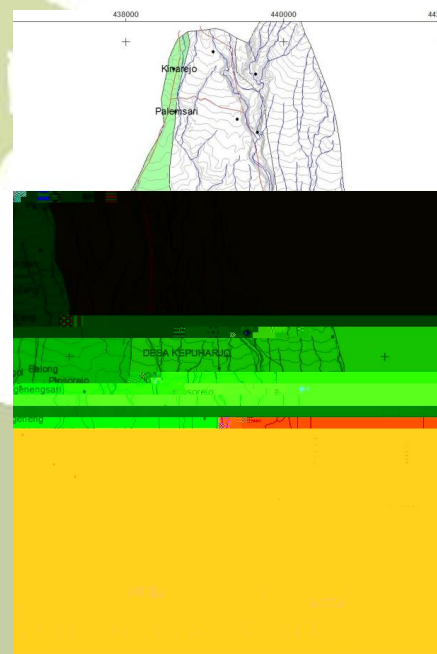
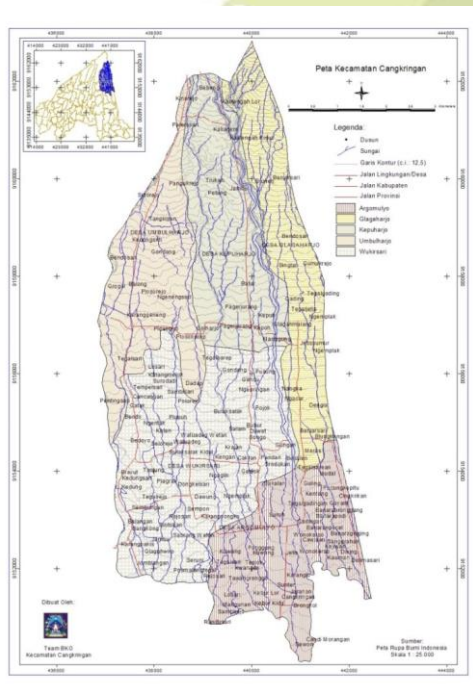


Figure 1a. map of Cangkringan district

Figure 1b. map of Umbulharjo Village

Source: Profil Kecamatan Cangkringan (Cangkringan District Profile), 2013

The next part of this paper is about the sense of belonging and its nature in the sense of community to support people's attempts of adaptation during the evacuation period. Then third part of this paper is the research design and methodology followed by the analysis and discussion. The last part is the conclusions drawn from the investigation of the results.

2. SENSE OF BELONGING AND SENSE OF COMMUNITY

Any disaster will leave stress to the individual, family, the part of the society, and even to the whole community. Cassidy (1997) explained that disaster as a cataclysmic event is described as high severity events, affecting large number of people and generally of limited duration (p. 108). Such immediate shock, grief, and psychological disturbance will often follow this traumatic event. It seems that it does not only need the rescue

services to evacuate the victims, but also it requires psychological support services to build the people's self-esteem to survive. In terms of how people respond to the disaster, there are individual differences to cope it. In another part of his explanation, Cassidy (1997) identified that the implication variables to respond to disaster have three levels. They are: in the person, in the traumatic event itself, and in the recovery environment. In the person, the aspect of cognitive of the person will mediate the process. In the traumatic event, the degree of loss and the level of threat in that situation can essentially give a huge impact. While in the recovery environment, the social support is necessary. (p. 113).

In the case of Merapi eruption disaster, that phenomenon after disaster also occurred in some villages within Cangkringan District, including Umbulharjo. Various public buildings such as neighborhood halls or neighborhood multi-purposes buildings, schools, religious buildings, and other government offices, are considered to be used as shelters for the evacuees. Physically, the buildings, with many modifications of spatial and functional rooms, are quite appropriate to accommodate a certain number of people for a temporal duration.. Nevertheless, other non physical aspects of life seem to be lack of services, for example in terms of the traumatic event and the belongings they had loss. It affected the social behavior among them. Thus, a good affection relationship between the evacuees and the place itself is important. From the psychological aspect, the behavior setting concept to be considered during the evacuation period is needed. As the social support in the evacuation buildings mainly came from their former surrounding communities, the sense of community principle is essential. The social framework among the evacuees helps the people to adapt to a new situation in the evacuation camp. Loosing something valuable after the disaster is very sorrowful. On the other hand, the feeling of the people is very significant in life and it strongly relates to how the people will cope with intensely awful emotions. Having sense of belonging regarding the place or the people around is experienced by every individual.

A sense of belonging is basically a human need. To build a sense of belonging, the efforts and practices are needed. CIDREE/ UNESCO, (1983) in its publication about 'A Sense of Belonging: Guidelines for values for the humanistic and international dimension of education' indicates that a sense of belonging implies that all should have a secure physical, emotional, and political locus within the society (p. 13). In order to encourage every individual in a community to develop a sense of belonging, the experiences sharing and opinions among others, fostering a sense of membership, creating an atmosphere of emotional security, and taking part in the special ceremonial activities or occasion can be carried out (p. 18). In addition to that, the Social Issues Research Centre/ SIRC highlighted that "alongside social interactions, physical space is a fundamental marker of belonging, both in traditional communities and in modern nation states" (SIRC, 2007, p.18).

A spirit of belonging together is experienced as a sense of community (McMillan, 1996). Whereas, McMillan and Chavis (1986) explained that a sense of community itself consists of 4 elements i.e. (1) membership, a feeling of belonging or of sharing a sense of personal relatedness; (2) influence, a sense of mattering, of making a difference to a group and of the group mattering to its members; (3) integration of fulfillment of needs, a feeling that members' needs will be met by the resources received through their membership in a group, and (4) shared emotional connection, the commitment and belief that members have shared and will share. According to them as well, one element of sense of belonging includes an expectation of belonging.

This research investigated about the roles of sense of belonging that influence the evacuees to have a sense of community within the public evacuation building due to the Mount Merapi eruption based on what McMillan and Chavis (1986) had defined above. This will be explored in the research design and methodology of the research.

3. RESEARCH DESIGN AND METHODOLOGY

This research utilized the quantitative approach to measure the sense of community in the public evacuation building where people were sheltered during the evacuation period, using a part (means not all criteria) of the sense of community index (SCI) developed by McMillan and Chavis (1986).

The location of the research was in Cangkringan District, Sleman Regency. The research population was focused on the residents of Umbulharjo Village, who had been evacuated and accommodated in the public evacuation buildings. Sampling technique for respondents used the purposive snowball sampling which directing to other people who were available for respondents. The number of respondents was limited to 50 (fifty), mostly adults, some of them are the head of households, coming from almost all neighborhoods over the village. From the respondents' experience, the near public evacuation buildings in which they had been sheltered were determined.

The methods of data collection data were questionnaire, interview, and observation. The types of data that were gathered were dependent on the criteria given in SCI, although not all criteria were used. The chosen criteria were expected to be able to indicate the habitability of the public evacuation buildings, and the adaptation of the people. Table 1 shows the data criteria that were explored from the element of sense of community used in the investigation.

Table 1 SCI, element and criteria

No	Element	Criteria
1	membership	<ul style="list-style-type: none"> ▪ member of activity groups ▪ frequencies of activities involved
2	influence	<ul style="list-style-type: none"> ▪ feeling of losing place or people around
3	integration of fulfillment of needs	<ul style="list-style-type: none"> ▪ involvement of daily activities ▪ frequencies of involvement
4	shared emotional connection	<ul style="list-style-type: none"> ▪ expectations in consuming the place ▪ degree of enjoyment in consuming the place ▪ degree of comfort in consuming the place

Source: McMillan and Chavis, 1986. (selected and modified by the author).

4. ANALYSIS AND DISCUSSION

The initial findings of the investigation can be explained from the data analysis, firstly from the identification of respondents, identification of the public evacuation buildings, and secondly from the relationship of what the places provide for daily or occasional activities and how they can get involved in the provided spaces. The discussion will take the sense of community in order.

The neighborhood origin of the identification respondents in Umbulharjo Village is shown in table 2 below:

Table 2 Neighborhood origin of respondents

Name of neighborhood origin	Number of respondents
Pangkurejo	5
Tangkisan	2
Kedungsriti	10
Kinahrejo	1
Balong	8
Plosokerep	5
Balong wetan	2
Gondang	5
Grogol	6
Grambetan	4
Bendosari	2
Total	50

Table 3 below indicates the public evacuation buildings around the Cangkringan District, the places where the respondents have been sheltered. The table shows that not all Umbulharjo citizens was evacuated in Umbulharjo Hall, some were sheltered in other public evacuation buildings near the surrounding the areas within Cangkringan District.

Table 3 Name of public evacuation buildings

Name of public evacuation building	Number of respondents
Hall of Umbulharjo Village	24
Hall of Wukirsari Village	21
Kiyaran elementary school	5
Total	50

The analysis of data using some criteria in Sense of Community Index (SCI) was categorized into 4 elements i.e. (1) membership; (2) influence; (3) integration of fulfillment of needs; and (4) shared emotional connection.

4.1. Membership

From 50 respondents, only 24% of them got involved as the organization members. All of them were in the community of Umbulharjo Hall Building. Other 76% of respondents had no membership of any organization. They were respondents who stay in Wukirsari Hall and Kiyaran Elementary School. They might not get involved in any organization there because the places itself are not in their own administrative village, so they were not familiar enough with the situation. It can be shown in table 4 below.

Table 4 Membership of any organization

Membership	Respondent	Percentage	Evacuation Building
women organization	7	14%	Umbulharjo
social organization	1	2%	Umbulharjo
bank staff association	1	2%	Umbulharjo
art society	3	6%	Umbulharjo
no activities	38	76%	Wukirsari, Kiyaran

The frequency of activities as a member of organization mostly one in a month, some others are weekly. If the evacuation duration is quite long, the membership or organization may be significant to support their sense of belonging because people will feel to be accepted in the community. On the other hand, if the duration of evacuation is just for a short period, the membership of organization is considered as not an essential support.

4.2. Influence

The influence includes a range of effect among others those have some bearing on control the place. This range of influence spreads from very difficult to very easy of the affection feeling of losing the place and in persuading or encouraging themselves and others to survive. Most people in Umbulharjo Hall Building felt very difficult if they lost the place for living. They had got along with the places because the place is located in their own administrative village. However, people who were sheltered in Wukirsari and Kiyaran School found that it was not very difficult to move to other places because they were used to stay in an area other than their own villages. The influence of the place did not significantly affect their life. Table 5 shows the influence of the affective places and people in public evacuation buildings.

Table 5 Range of influence

Feeling of losing the place to stay survive	Respondents
very difficult	10
difficult	19
easy	17
very easy	4
Total	50

4.3. Integration of Fulfillment of Needs

The integration of fulfillment of needs consists of the involvement in daily activities in the camp, and the frequency of such activities. There are almost 80% of the respondents who did not get involved in the daily activities in the evacuation buildings. It is a very a disappointing situation that the evacuees did nothing in the camp. This condition implies that the place is not quite conducive to do some useful activities to stay survive. It may due to the lack amount of facilities which can encourage people to be actively doing various activities. It may also because of the not so close interrelationship among others. Another 20% of the respondents got involves in the daily activities such as servicing mails for others, encouraging others to be responsible for their own belongings, etc.

4.4. Shared Emotional Connection

The shared emotional connection includes expectations in consuming the place, degree of enjoyment in consuming the place, and degree of comfort in consuming the place. The data shows that 68% of the respondents did not have expectation of the place to be consumed for doing something. This condition indicates that the people did not expect to be in the camp for long time duration. They only hoped to stay in the camp for a short evacuation period. The rest 32% respondents hoped to have something to do to survive in the camp.

The degree of enjoyment in consuming the place in the camp presents quite a good result. Only 18% of the respondents did not enjoy living in the camp. The others were easily adaptable to the place where they were sheltered for a short evacuation period. It means that the place is habitable enough to naturally accommodate them.

In terms of the degree of comfort, 54% of the respondents said that they can adapt the physical condition of the place and felt comfortable enough to stay during the evacuation period. Another 46% of respondents experienced uncomfortable feeling in the camp, mostly in the Wukirsari Village Hall. This may due to respondents were less familiar with the place which is outside of their own administrative village area. This may also because the place was less habitable to live for a certain duration of evacuation period.

4.5. Correlation Between Elements

The integration of fulfillment of needs gives effects onto the shared emotional connection in terms of the expectation of doing some activities together with other evacuees in the camp. The ones who had expectation are the ones who got involved in some activities. The developing potential and prospective activities mainly depend on the places where the people stay. It means that the development of some facilities and spacious spaces to accommodate various activities in the camp can support the degree of habitability of the place. It was shown in the Umbulharjo Hall Building.

The respondent who did not get involved in any activities in the camp, did not have a better expectation for a longer evacuation duration as happened in Wukirsari Hall Building and Kiyaran Elementary School. It can be concluded that providing various activities is a significant aspect to create the attachment of the people towards a certain place. The attachment of the people to a place attachment also affects the degree of enjoyment as well as the degree of comfort in the case of Umbulharjo Hall Building. However, it is not reliable to the cases of Wukirsari Hall Building and Kiyaran Elementary School. In these two buildings, regardless getting involved in any activities or not, the evacuees can still adapt to the physical condition so they feel enjoy and comfortable for a certain short duration of the evacuation.

The correlation between the integration of fulfillment of needs and the influence indicates that the more various needs fulfilled in the camp, the bigger opportunity to the people to have a sense of belonging of the place.

The element of membership gives relational effect to the shared of emotional connection. The member of an organization can share experiences, expectation in consuming the place, and also the hopes of more enjoyable and comfortable place to live.

It seems that element of membership does not give effect on the element of influence. It does not matter whether the respondents are a member of an organization or not. They still found it difficult to imagine the losing of their homes and the possibility of moving to the new places as the shelters.

5. RESEARCH RESULTS AND CONCLUSIONS

In general, from the results, it can be concluded that the people's sense of belonging of the public evacuation shelters in Cangkringan District only appears in the elements of shared emotional connection and influence. This is mainly due to the effects of the membership element and the integration of the fulfillment of needs within the sheltered camps.

The aspect of communities' residence significantly influences the people's sense of belonging of the public evacuation shelters where they are accommodated during the evacuation period of time. The sense of familiarity of the area will make it easier for the people to survive. The people need to have a better attachment to the place in order to survive.

Further researches are still needed. A broader area of study with a bigger number of respondents and a deeper qualitative investigation about the people's sense of belonging in public evacuation shelters need to be developed.

In addition, the integrated facilities and services towards a better quality of life in public evacuation buildings need to be provided, not only to complete the habitability of physical settings but also the social spaces to support the evacuees' psychological concerns.

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